UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,643	06/23/2003	Eduard Erhardt	2454.1093	6122

21171   7590   03/08/2011
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EXAMINER
PATEL, CHIRAG R

ART UNIT	PAPER NUMBER
2454	

MAIL DATE	DELIVERY MODE
03/08/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/600,643	ERHARDT, EDUARD
	Examiner	Art Unit
	CHIRAG PATEL	2454

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *the response of October 26, 2010*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-6 and 8-25* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-6 and 8-25* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some *   c) ☐ None of:

        1. ☒ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____.

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Response to Amendment

Applicant's request for reconsideration of the finality of the rejection of the last

Office action is persuasive and, therefore, the finality of that action is withdrawn.

Response to Arguments

Applicant's arguments, see pre-appeal brief, filed October 26, 2010, with respect

to the rejection(s) of claim(s) 1-6 and 8-25 under 35 U.S.C. 103 have been fully

considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of

newly found prior art.

Applicants argue that the cited reference do not disclose or suggest comparing a

first work result of a first computer with a second work computer of a second computer

to enable the first and second computers to match.

Examiner shows that Touboul shows a comparing of work results, and performs

the resynchronization based on the value of the vector per Col 7 line 64-Col 8 line 10

and Col 10 line 66-Col 11 line 31 and Figure 6: item 101 in that both local and remote

system generate a status (work result) of the corresponding track. Furthermore,

examiner shows per Figure 6: items 102, 106 a comparison process of the 1st and 2nd

work result and per Col 11 lines 28-32 and per Fig. 6: item 110 resynchronization based

on value of the vector.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-6, 8-22 and 25 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Ofek (US 6,549,921) in view of Touboul (US 6,480,962) / Lofall (US

6,484,109)

As per claim 1, Ofek discloses a computer system connected to a data

communications network, said system comprising:

a first computer; (Col 4 lines 1-22; first data storage facility)

a second, redundant computer that is independent of the first computer; (Col 4

lines 1-22; second data storage facility)

a computer-to-computer connection between the first computer and the second

computer enabling the first computer is configured to match with the second

computer by comparing a first work result of the first computer with a second

work result of the second computer; (Col 7 line 64-Col 8 line 10; Col 10 line 66-

Col 11 line 31; Figure 6: item 101: both local and remote system generate a

status (work result) of the corresponding track; Figure 6: items 102, 106

performs the comparison process of the 1st and 2nd work result; Fig. 6: item 110 ;

Col 11 lines 28-32, resynchronizes system based on value of the vector) and

so that (Col 5 lines 44-51) receipt of any data from the data communications

network is limited to the first computer; (Col 3 lines 65-67; provide a method and

apparatus for backing up data in a remote data facility that is fully transparent to

operations at a local site)

Ofek fails to disclose at least one computer-to-network connection to connect both

the first and second computers to the data communications network independent from

the computer-to-computer connection wherein at least an initial processing of the data

received from the data communications network is limited to the first computer and

transmission of any data to the data communications network is limited to the second

computer and wherein the first computer is configured to convert, transmit to and store

in the second computer non-verified or non-verifiable data received by the first computer

only in non-processable form.

Touboul discloses converting non-verified or non-verifiable data received by the

first computer in non-processable form. (Col 6 lines 4-21)   Lofall discloses at least one

computer-to-network connection to connect both the first and second computers to the

data communications network independent from the computer-to-computer connection

wherein at least an initial processing of the data received from the data communications

network is limited to the first computer and transmission of any data to the data

communications network is limited to the second computer (Col 5 line 60-Col 6 line 9;

the remote workstation would need to operate as a true slave, where specific data

collection "routes" are downloaded to a purpose-built data collector, then after data is acquired, uploads the "route" back to the host system; Col 6 lines 10-25; This replication method, represented in FIG. 3, may operate on a direct cable connection, across an infrared light connection, radio frequency network link, physical network connection, or direct or internet modem connection)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Touboul to convert, transmit to and store in the second computer non-verified or non-verifiable data received by the first computer only in non-processable form with the teachings of replication system of Ofek. The motivation for doing do would have been to protect clients from hostile downloadables. (Col 2 lines 24-31)

At the time of invention, it would have been obvious to combine the teachings of the computer-to-network connection and limiting data to the first computer and second computer of Lofall with the Touboul to convert, transmit to and store in the second computer non-verified or non-verifiable data received by the first computer only in non-processable form with the teachings of direct computer-to-computer connection in Ofek. The motivation would have been so that it does not require remote users to stay connected to a central host but does require an intermittent network connection so that it can synchronize databases transparently in the background. (Col 2 lines 24-31).

As per claim 2, Ofek / Touboul / Lofall disclose the method of claim 1. Ofek discloses further the computer system as claimed in claim 1, wherein the first computer

is configured to verify the received data in the first computer, and wherein the first

computer is configured to supply only verified data to the second computer in

processable form. (Col 10 line 66-Col 11 line 20)

As per claim 3, Ofek / Touboul /Lofall disclose the computer system as claimed in

claim 1. Ofek discloses wherein the first computer and the second computer are

configured to independently verify the received data, and wherein only matching verified

data are stored in the second computer in processable form. (Col 11 lines 20-27)

As per claim 4, Ofek / Touboul /Lofall disclose the computer system as claimed in

claim 1. Ofek discloses further comprising: a central data memory, (Col 7 lines 5-16)

wherein direct access to internal data of the computer system contained in a

central data memory is limited to the second computer; and (Col 4 lines 23-41)

wherein the first computer is configured to receive the internal data only upon

request via the second computer. (Col 7 lines 5-16)

As per claims 5 and 21, Ofek / Touboul / Lofall disclose the computer system as

claimed in claim 1. Ofek discloses further comprising the computer system as claimed in

claim 1, further comprising: an independent, redundant third computer; and (Col 11 lines

45-67)

wherein the second computer is configured to match with the third computer by

comparing the second work result of the second computer with a third work result of the

third computer. (Col 7 line 64-Col 8 line 10; Col 10 line 66-Col 11 line 20)

As per claim 6, Ofek discloses a method, comprising:

producing a first work result representing the verified data; (Col 7 line 64-Col 8

line 10)

forwarding the verified data in processable form and the non-verified data in the

non- processable form from the first computer to a second computer; (Col 3 lines 65-67;

provide a method and apparatus for backing up data in a remote data facility that is fully

transparent to operations at a local site) via a computer-to-computer connection (Figure

1: items 30, 33)

in the second computer, independently verifying the verified data forwarded from

the first computer and producing a second work result based on the independent

verification; comparing the first work result with the second work result; (Col 7 line 64 –

Col 8 line 10; Col 10 line 66-Col 11 line 20; resynchronizes system based on valid bit

patterns (work result) of local and remote system)

if the first work result and the second work result match, storing the verified data

in the second computer, (Col 11 lines 28-32) and limiting receipt of any data from the

data communication network to the first computer and (Col 3 lines 65-67; provide a

method and apparatus for backing up data in a remote data facility that is fully

transparent to operations at a local site)

limiting transmission of any data to the data communications network to the

second computer. (Col 3 lines 56-60; second disk storage facility for operating normally

as a mirror for the first disk storage facility)

Ofek fails to disclose limiting receipt of any data from the data communication to

the first computer and limiting transmission of any data to the data communication

networks to the second computer, via at least one computer-to-network connection

independent of the computer-to-computer connection, classifying data received from a

data communications network as verified data and non-verified data, converting the

non-verified data into a non-processable form by the first computer.

Touboul discloses in a first computer , classifying data received from a data

communications network as verified data and non-verified data, converting the non-

verified data into a non-processable form by the first computer. (Col 6 lines 4-21)

Lofall discloses limiting receipt of any data from the data communication to the first

computer and limiting transmission of any data to the data communication networks to

the second computer, via at least one computer-to-network connection independent of

the computer-to-computer connection. (Col 5 line 60-Col 6 line 9; the remote

workstation would need to operate as a true slave, where specific data collection

"routes" are downloaded to a purpose-built data collector, then after data is acquired,

uploads the "route" back to the host system; Col 6 lines 10-25; This replication method,

represented in FIG. 3, may operate on a direct cable connection, across an infrared light

connection, radio frequency network link, physical network connection, or direct or

internet modem connection)

At the time the invention was made, it would have been obvious to a person of

ordinary skill in the art to combine the teachings of Touboul to convert, transmit to and

store in the second computer non-verified or non-verifiable data received by the first

computer only in non-processable form with the teachings of replication system of

Ofek. The motivation for doing do would have been to protect clients from hostile

downloadables. (Col 2 lines 24-31)

At the time of invention, it would have been obvious to combine the teachings of

the computer-to-network connection and limiting data to the first computer and second

computer of Lofall with the Touboul to convert, transmit to and store in the second

computer non-verified or non-verifiable data received by the first computer only in non-

processable form with the teachings of direct computer-to-computer connection in Ofek.

The motivation would have been so that it does not require remote users to stay

connected to a central host but does require an intermittent network connection so that

it can synchronize databases transparently in the background. (Col 2 lines 24-31).

As per claim 8, Ofek / Touboul / Lofall disclose the method of claim 6. Ofek

discloses wherein only the second computer directly accesses internal data contained in

a central data memory, and wherein the first computer indirectly accesses the internal

data only upon request via the second computer. (Col 7 lines 5-16)

As per claim 9, Ofek / Touboul / Lofall disclose the method of claim 6. Ofek

discloses the method of claim 6, further comprising matching the second work result of

the second computer with a third work result of a third computer. (Col 7 line 64-Col 8

line 10; Col 10 line 66-Col 11 line 20; Col 11 lines 56-67)

As per claims 10 and 16, Ofek / Touboul / Lofall disclose the computer system as

claimed in claim 1. Ofek discloses wherein connection between the first computer and

the second computer forms an internal network of the computer system and wherein the

data communications network is an external network with respect to the computer

system. (Col 1 lines 44-51, Col 3 lines 44-54)

As per claim 11, Ofek / Touboul / Lofall disclose the computer system as claimed

in claim 1. Ofek discloses wherein the first computer independently verifies the

received data producing the first work result and wherein the second computer

independently verifies the received data producing the second work result. (Col 7 line

64 – Col 8 line 10)

As per claim 12, Ofek / Touboul / Lofall disclose the computer system as claimed

in claim 1. Ofek discloses wherein data processed by the first computer produces the

first work result and wherein data processed by the second computer produces the

second work result. (Col 7 line 64-Col 8 line 10)

As per claim 13, Ofek / Touboul / Lofall disclose the computer system as claimed in claim 12. Ofek discloses wherein the first and second work results are produced by executing at least one of horizontal parity checks and parallel balancing. (Col 10 line 66-Col 11 line 20)

As per claims 14 and 19, Ofek / Touboul / Lofall disclose the computer system as claimed in claim 1. Ofek discloses wherein said matching by the first computer with the second computer is performed at an end of a program or when memory is being accessed. (Col 4 lines 1-22; Upon completion of the backup operation, the copy program is enabled to copy data blocks from the first data storage facility to the second data storage facility corresponding to the recorded identifications thereby reestablishing the second data storage facility as a mirror of the first data storage facility)

As per claims 15 and 20, Ofek / Touboul / Lofall disclose the computer system as claimed in claim 1. Ofek discloses wherein all of the initial processing is performed by the first computer. (Col 4 lines 1-22)

As per claim 17, Ofek / Touboul / Lofall disclose the method as claimed in claim 6. Ofek discloses wherein the first computer independently verifies the received data producing the first work result and wherein the second computer independently verifies the received data producing the second work result. (Col 7 line 64-Col 8 line 10)

As per claim 18, Ofek / Touboul / Lofall disclose the method as claimed in claim

6. Ofek discloses wherein data processed by the first computer produces the first work

result and wherein data processed by the second computer produces the second work

result. (Col 7 line 64 – Col 8 line 10)

As per claim 22, Ofek / Touboul / Lofall disclose the method as claimed in claim

21. Ofek discloses wherein only the second and third computers have access to

internal data of the computer system and wherein the third computer is configured to

implement operation and monitoring of an automation system. (Col 7 lines 17-25)

As per claim 25, Ofek discloses a method, comprising:

producing a first work result representing the verified data; (Col 7 line 64-Col 8

line 10)

forwarding the verified data in processable form and the non-verified data in the

non- processable form from the first computer to a second computer; (Col 3 lines 65-67;

provide a method and apparatus for backing up data in a remote data facility that is fully

transparent to operations at a local site) via a computer-to-computer connection (Figure

1: items 30, 33)

in the second computer, independently verifying the verified data forwarded from

the first computer and producing a second work result based on the independent

verification; comparing the first work result with the second work result; (Col 7 line 64 –

Col 8 line 10; Col 10 line 66-Col 11 line 20; resynchronizes system based on valid bit

patterns (work result) of local and remote system)

if the first work result and the second work result match, storing the verified data

in the second computer, (Col 11 lines 28-32) and

wherein receipt of any data from the data communication network is limited to the

first computer (Col 3 lines 65-67; provide a method and apparatus for backing up data in

a remote data facility that is fully transparent to operations at a local site) and wherein

transmission of any data to the data communications network is limited to the second

computer, and (Col 3 lines 56-60; second disk storage facility for operating normally as

a mirror for the first disk storage facility)

wherein data received from the data communications network and data

transmitted to the data communications network are limited without otherwise limiting

forwarding of verified data in processable form and non-verified data in the non-

processable form, (Col 3 lines 55-67) from the first computer to the second computer.

(Figure 1: items 30, 33)

Ofek fails to disclose limiting receipt of any data from the data communication

network to the first computer and limiting transmission of any data to the data

communications network to the second computer via at least one computer-to-network

connection independent of the computer-to-computer connection and in a first computer

, classifying data received from a data communications network as verified data and

non-verified data, converting the non-verified data into a non-processable form by the

first computer.

Touboul discloses in a first computer , classifying data received from a data

communications network as verified data and non-verified data, converting the non-

verified data into a non-processable form by the first computer. (Col 6 lines 4-21)

Lofall discloses limiting receipt of any data from the data communication network to the

first computer and limiting transmission of any data to the data communications network

to the second computer via at least one computer-to-network connection independent

of the computer-to-computer connection. (Col 5 line 60-Col 6 line 9; the remote

workstation would need to operate as a true slave, where specific data collection

"routes" are downloaded to a purpose-built data collector, then after data is acquired,

uploads the "route" back to the host system; Col 6 lines 10-25; This replication method,

represented in FIG. 3, may operate on a direct cable connection, across an infrared light

connection, radio frequency network link, physical network connection, or direct or

internet modem connection)

At the time the invention was made, it would have been obvious to a person of

ordinary skill in the art to combine the teachings of Touboul to convert, transmit to and

store in the second computer non-verified or non-verifiable data received by the first

computer only in non-processable form with the teachings of replication system of

Ofek. The motivation for doing do would have been to protect clients from hostile

downloadables. (Col 2 lines 24-31)

At the time of invention, it would have been obvious to combine the teachings of the computer-to-network connection and limiting data to the first computer and second computer of Lofall with the Touboul to convert, transmit to and store in the second computer non-verified or non-verifiable data received by the first computer only in non-processable form with the teachings of direct computer-to-computer connection in Ofek. The motivation would have been so that it does not require remote users to stay connected to a central host but does require an intermittent network connection so that it can synchronize databases transparently in the background. (Col 2 lines 24-31).

Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ofek (US 6,549,921) / Touboul (US 6,480,962) / Lofall (US 6,484,109) further in view of Rowen et al. - hereinafter Shirley (US 6,567,869)

As per claims 23 and 24. Ofek / Touboul disclose the computer system as claimed in claim 5. Ofek fails to disclose wherein user inputs are supplied via a keyboard or a mouse in parallel to the first computer, the second computer and the third computer. Shirley discloses wherein user inputs are supplied via a keyboard or a mouse in parallel to the first computer, the second computer and the third computer. (Col 2 line 56-Col 3 line 11, Figure 1)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Shirley which controls multiple computer using single mouse and keyboard as taught by Shirley with the

the computer-to-network connection and limiting data to the first computer and second

computer of Lofall with the Touboul to convert, transmit to and store in the second

computer non-verified or non-verifiable data received by the first computer only in non-

processable form with the teachings of direct computer-to-computer connection of the

synchronization system in Ofek. The motivation would have been to control multiple

computers using a single keyboard and mouse. (Col 2 line 56-Col 3 line 11)

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chirag R Patel whose telephone number is (571)272-

7966. The examiner can normally be reached on Monday to Friday from 8:00AM to

4:30PM. If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Joseph E. Avellino, can be reached on 571-272-3905.

The fax phone number for the organization where this application or proceeding

is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information

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http://pairdirect.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197

(toll free).

      /Chirag R Patel/
      Examiner, Art Unit 2454

      /Joseph E. Avellino/
      Supervisory Patent Examiner, Art Unit 2454